U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERC

	U.S. Patent and Irademar.	k Office: U.S. DEPARTMENT OF COMMERCE
IDS FORM	Application Number	10/790,959
	Filing Date	March 1, 2004
INFORMATION DISCLOSURE STATEMENT BY APPAICANT	First Named Inventor	Takemori TAKAYAMA
700	Group Art Unit	1742
OCT 16 2007	Examiner Name	Deborah YEE
Sheet 1	Attorney Docket Number	03773/HG

U.S. PATENT DOCUMENTS

Exam. Cite Inits* No1	Document Number	Kind Code ²	Name of Patentee or Applicant	Publication Date MM-DD-YYYY	Relevant Portion
	6,899,774	В2	KOMATSU LTD	05-31-2005	
į	RE 28,523		REPUBLIC STEEL CORPORATION	08-19-1975	
	5,131,965	A	CATERPILLAR INC	07-21-1992	
	4,162,157		USA/DEPT OF ENERGY	07-24-1979	

FOREIGN PATENT DOCUMENTS

	T	1	r					,
Exam Inits	Cite No¹	Offc³	Document Number4	Kind Code⁵	Name of Patentee or Applicant	Publication Date MM-DD-YYYY	Relevant Portion	T ⁶
		JР	49-7117	A	MITSUBISHI STEEL MFG CO LTD	01-22-1974		a
	}	JР	54-10923	B2	NIPPON STEEL CORP	05-10-1979		a
		JР	54-23329	B2	KOMATSU LTD	08-13-1979		a
		JP	55-12184	B2	TOYOTA MOTOR CORP et al	03-31-1980		а
		JP	57-10177	B2	TOPY INDUSTRIES	02-25-1982		a
		JР	57-16186	B2	KAWASAKI HEAVY IND LTD	03-08-1977		b
		JP	57-19183	B2	NIPPON STEEL CORP	03-23-1978		b
		JP	55-2789	A	KOMATSU LTD	01-10-1980		b

Examiner Date Signature Considered

^{*} EXAMINER: Initial if document considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See kinds of U.S. Patent Documents. ¹ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁵ Place a check here if English translation is attached.

DATE: October 16, 2007

a ENGLISH-LANGUAGE TRANSLATION OF TITLE PAGE ONLY ENCLOSED; b ENGLISH-LANGUAGE ABSTRACT ENCLOSED

					Ü	.S. Pa	atent and Trademar			TMENT OF COM	MER	
IDS F	FORM				Applic	atio	n Number	10	/790,959			
					Filing	Filing Date			March 1, 2004			
			SCLOS		First	Name	d Inventor	Та	Takemori TAKAYAMA			
SIMIE	PINEN T	DI F	APPLICA	-71A T	Group	Art	Unit	17	42			
				Examin	er N	ame	De	borah YEE				
Sheet	2	of	4	Attorn	ey D	ocket Number	03	773/HG		•		
				ט	.S. PAT	CENT	DOCUMENTS	<u> </u>				
Exam. Inits*	Cite No¹	Docum	nent Numb	per	Kind Code ²		ame of Patentee Applicant	or	Publication Date MM-DD-YYYY	Relevar Portio		
								····				
		}										
				FO	REIGN I	PATE	NT DOCUMENTS	3			-	
Exam Inits'	Cite No¹	Offc³	Documer	t Number⁴	Kind Code		ame of Patentee Applicant	or	Publication Date MM-DD-YYYY	Relevant Portion	7	
		JР	57-894	24	A	SU	MITOMO METAL I	ND	06-03-1982		а	
		JР	57-174	434	A	КС	MATSU LTD		10-27-1982		a	
		JP	59-107066		A	- 1	TSUBISHI HEAVY D LTD	•	06-21-1984		a	
		JР	59-136	451	A		TSUBISHI HEAVY D LTD	•	08-06-1984		a	
		JР	5-3246	2	B2	NI	PPON STEEL COR	P	07-07-1989		а	
		JР	7-7438	0	В2	NI	PPON STEEL COR	P	10-02-1991		a	
		JР	5-5942	7	В2	мі	TA IND CO LTD		03-30-1984		a	
		JР	322773	0	B2	DA	AIDO STEEL CO I	TD	03-02-1993		а	
		JP	55-121	77	В2	КС	MATSU LTD		01-10-1977		a	
		JР	54-124	816	A		TSUBISHI HEAVY D LTD	•	09-28-1979		a	
		JР	54-143	715	А		TSUBISHI HEAVY D LTD		11-09-1979		a	
											\vdash	
Examir Signat			1		<u> </u>		Date Considered		I	<u> </u>	1	

^{*} EXAMINER: Initial if document considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁵ Place a check here if English translation is attached.

DATE: October 16, 2007 a ENGLISH-LANGUAGE ABSTRACT ENCLOSED

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

			, -, -, -, -, -, -, -, -, -, -, -, -,		Τ_		. Patent and Trademar		/790,959	THENT OF COM	MERC		
IDS 1	FORM				App	olica	tion Number						
					Fi]	Filing Date			March 1, 2004				
			SCLOS		First Named Inventor Group Art Unit				kemori TAKAYAM	IA			
									1742				
					Exa	amine	r Name	Del	borah YEE				
Sheet 3 of 4						Attorney Docket Number 03773/HG							
				υ	.s.	PATE	ENT DOCUMENTS	· I					
Exam. Inits*	Cite No¹	Docum	ent Numl	oer		Kind Name of Patentee of Applicant		or	Publication Date MM-DD-YYYY	Relevar Portio			
		2004,	/004775	7		A1	TAKAYAMA		03-11-2004				
											_		
				FO	REIG	N PA	ATENT DOCUMENTS	3					
Exam Inits	Cite No¹	Offc³	Documer	ıt Number⁴		Kind Code ⁵	Name of Patentee Applicant	or	Publication Date MM-DD-YYYY	Relevant Portion	Т		
		JР	2002-1	.21645			NKK BARS & SHAPE	S	04-26-2002		a		
							CO LTD						
		JP	60-215	743			SUMITOMO METAL INDUSTRIES CO LT	'D	10-29-1985		a		
		JР	05-078	781			SUMITOMO METAL I	ND	03-30-1993		a		
		JP	9-1114	03			TOA STEEL CO LTD)	04-28-1997		a		
		JР	8-1094	35			TOA STEEL CO LTD)	04-30-1996		a		
	1		1										

^{*} EXAMINER: Initial if document considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

DATE: October 16, 2007

a ENGLISH-LANGUAGE TRANSLATION ENCLOSED

¹ Unique citation designation number. ² See kinds of U.S. Patent Documents. ¹ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁴ Place a check here if English translation is attached.

TDG FOR					Application	on Number	10/790,959				
IDS FORM INFORMATION DISCLOSURE		Filing Dat	e	March 1, 2004							
INFORMA STATEME					First Name	ed Inventor	Takemori TAKAYAMA				
					Group Art	Group Art Unit 1742					
					Examiner N	Deborah YEE					
Sheet	4		of	4	Attorney I	Oocket Number	03773/HG				
		отни	ER D	OCUMENTS	- NON-PAT	ENT LITERATU	JRE DOCUMENTS				
Examiner Initials¹	Cite No.1	Incl pa	ude na ge(s)	ame of author , volume-issu	(in CAPITAL I e number(s), p	LETTERS), title of publisher, city and	article, title of item, date, d/or country where published				
					***	cond Edition, (199		T			
Examiner						Date		1			
Signatur	·e					Considered					

^{*} EXAMINER: Initial if document considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

DATE: October 16, 2007

 $^{^1}$ Unique citation designation number. 2 Place a check here if English translation is attached.